DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023871 Address: 333 Burma Road **Date Inspected:** 21-May-2011

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes N/A No

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Kelly Leavitt, was present during the times noted above for random observations relative to the work being performed.

Trial Assembly

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Wong Xiang Pin and ABF QA Sha Zhi.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14E PCMK: SEG3019Q Weld No: 080.081 Welder: 049769

WPS-B-P-2114-FCM-1

Components; OBG 14E

PCMK: FB3240 Weld No: 019 Welder: 040769

WPS-B-P-2212-TC-U4b-FCM-1



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Components; OBG 13CE PCMK: SEG3011M

Weld No: 122 Welder: 058102

WPS-B-P-2212-TC-U4b-FCM-1

Components; OBG 14E PCMK: SEG3011N Weld No: 281

Welder: 058102

WPS-B-P-2212-TC-U4b-FCM-1

Components; OBG 13CE PCMK: KP3005-001 Weld No: 003,005 Welder: 037723

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG 13CE PCMK: KP3007-001 Weld No: 001,003 Welder: 037723

WPS-B-P-2214-TC-U4b-FCM-1

Components; OBG PCMK: LD3034-001 Weld No: 148,149,124,125

Welder: 067570

WPS-B-P-2214-FCM-1

Components; OBG 13BW PCMK: LD3034-001

Weld No: 148,149,124,125

Welder: 067829

WPS-B-P-2214-FCM-1

Components; OBG 13BW

PCMK: SEG3014S Weld No: 055 Welder: 066398

WPS-B-P-2213-TC-U4b-FCM-1

Components; OBG 13AW



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PCMK: SEG3013AH

Weld No: 004 Welder: 066398

WPS-B-P-2213-TC-U4b-FCM-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Wong Xiang Pin and ABF QA Sha Zhi.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 14E PCMK: SEG3019V Weld No: 090,091 Welder: 217185

WPS-B-T-2232-ESAB

Components; OBG 14E

PCMK: SP3146 Weld No: 019 Welder: 217185

WPS-B-T-2232-ESAB

Components; OBG 13CE

PCMK: SEG3019V

Weld No: 119,121,123,125

Welder: 050242

WPS-B-T-2233-ESAB

Components; OBG 13CE PCMK: SEG3019AG

Weld No: 038,051,040,042,044 Welder: 055491, 051356, 050977 Weld Repair No. B-WR21042

WPS-345-FCM-3G(3F)-ESAB-Repair

Components; OBG 13CE

PCMK: SEG3015B

Weld No: 171,175,179,183,187

Welder: 067876

WPS-B-T-2233-ESAB

Components; OBG 13CE

PCMK: SEG3015B



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Weld No: 172,173,176,177,180,181,184,185

Welder: 067876

WPS-B-T-2232-ESAB

Components; OBG 13CE

PCMK: SEG3015B Weld No: 195,199,203

Welder: 037705

WPS-B-T-2233-ESAB

Components; OBG 13CE

PCMK: SEG3015B

Weld No: 196,197,200,201,204,205

Welder: 037705

WPS-B-T-2232-ESAB

Components; OBG PCMK: BP2090-001

Weld No: 018,019,026,027,034,035

Welder: 070101

WPS-B-T-2233-ESAB

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Shielded Metal Arc Welding (SMAW) process.

ZPMC QC is identified as Sun Tian Liang and An Qing Ziang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG PCMK: SEG3014S Weld No: 036 Welder: 040270

Weld Repair No. B-WR21064

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG PCMK: SEG3013M

Weld No: 098 Welder: 047864

Weld Repair No. B-WR20695

WPS-345-SMAW-3G(3F)-FCM-Repair-1

Components; OBG 13AW PCMK: LD3034-001

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Weld No: 148,149,124,125

Welder: 067829

WPS-B-P-2213-B-U2-FCM-1

Components; OBG 13AW PCMK: SEG3013AH

Weld No: 070 Welder: 066674

WPS-B-P-2211-TC-U4b-FCM-1

This QA Inspector observed the following work in progress for Trial Assembly.

ZPMC was using the Flux Core Arc Welding (FCAW) process.

ZPMC QC is identified as Sun Tian Liang and An Qing Ziang.

Welding variables recorded by QC appeared to comply with the approved Welding Procedure Specification (WPS).

Listed below are the locations that were identified by this QA inspector.

Components; OBG 13BW

PCMK: SA3122

Weld No: 002,008,011

Welder: 045143

WPS-B-T-2231-ESAB

Components; OBG 13CW

PCMK: SA7514

Weld No: 003,008,011

Welder: 045240

WPS-B-T-2231-ESAB

Components; OBG 13AW

PCMK: SEG3013J Weld No: 164,178 Welder: 062708

WPS-B-T-2133-ESAB

Components; OBG 13AW

PCMK: SEG3013J Weld No: 170,184 Welder: 048433

WPS-B-T-2133-ESAB

Components; OBG 14W PCMK: SEG3020AL

Weld No: 030,032,034,036,038,040,042,044,046,048

Welder: 066881, 067275

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WPS-B-T-2233-ESAB

This QA inspector performed MT of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector generated an MT report for this date. The member was identified as OBG CB18. The weld designations reviewed are as follows:

SEG3007V-067,068,070~087,385~404,089~102,365~384,117~128,345~364,278,279,105,106

This Quality Assurance (QA) Inspector, responding to NDT notification 09207, performed 100% Visual Inspection (VT) and approximately 15% Magnetic Particle Testing (MT) of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. The component OBG CB18 at SEG3007V weld number 381 was found to have an indication 35mm long. This QA informed ZPMC QC Inspectors Xie Gen Lin and AB Flour QA Inspector CK Chen of the problem. A TL-015 Incident Report, and a TL6028 MT report, will be documented for the accordance. (see photos)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.







Summary of Conversations:

"No relevant conversations."

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey 1500026784, who represents the Office of Structural Materials for your project.

Inspected By:	Leavitt,Kelly	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer